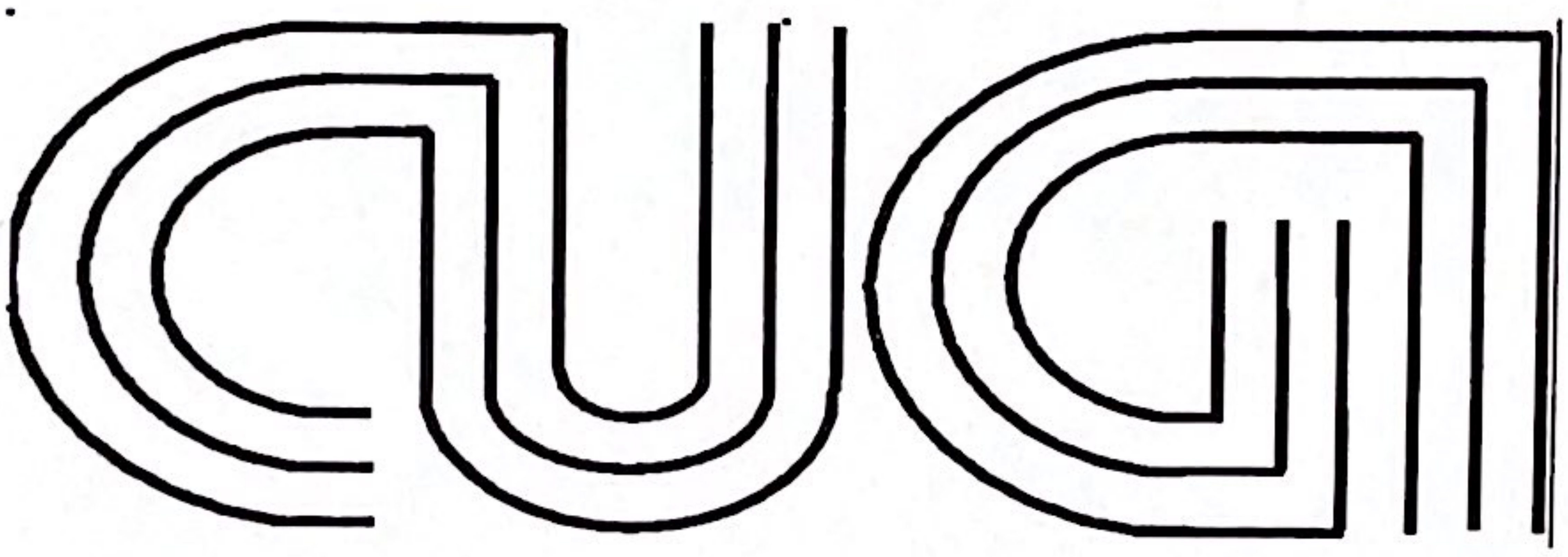

Newsletter
January 1996

In this issue...

CUSeeMe - Internet Video Conferencing
VARexx - Visual Arexx
A Christmas Tragedy
Monitor Your System
PowerPC Amiga's First Game

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If you have a modem, call CUGI BBS at (01) 837 0204. You can reach CUGI by Internet mail at cugi@ieunet.ie, or individual committee members at the network addresses listed above.

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Newsletter

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The deadline for articles for the next Newsletter is April 5, 1996

Editorial

by Gavin McConnon

WELCOME to the January Newsletter, and my second one as Editor. I'm getting the hang of it now, so the April issue may even make it out in April. Again I must thank Colin for his help and time with putting this issue together.

So what's in store this issue, I hear you ask. Well Karl takes his regular communications column and looks at CUSeeMe, certinally the way to go for budget video conferencing and a good challange to IRC. Those of you at the December meeting will remember Eddy's harddisk problems, and he lets us know what happened after the meeting, and to all his data. Kevin takes a look at VArexx, a easy way to generate GUIs for your ARexx creations. And finally Colin keeps us up to date with the Escom and Amiga scene.

Rumour has it there is a BeBox in town (see last newsletter) so make sure you are at the next meeting, certinally something not to be missed.

Now, on serious note, now doubt you have noticed the newsletter is getting smaller each month. If this continues I would hate to see a pamphlet style page or two being called our newsleter. The number of contributions from non-committee members is virtually nil. You may argue that there is a lack or Amiga news or hardware out there, but the club is information technology orientated, and we like to hear about any new developments out there. It doesn't take that long to write a article, about maybee some new software you came accross, a new project you are working on or anything you may find of interest to the rest of the club.

Many club members also subscribe to JAM (Just Amiga Monthly), and will be interested to know that Jeff Walker, the editor and founder, has left to persue a career in book publishing. You can read the details from Jeff himself on page six.

Enjoy the issue!

GMC

The Virtual i-glasses

Here is a picture of Escom Multi-medias I-Glasses. They are headsets designed for virtual reality use, along with advanced video games or general video viewing. Although expensive as a home game machine, prices will no doubt be comming down over the next year or so. CUGI hopes to have a pair to demo in the near future, so expect a article as well.

GMC

The Virtual I-Glasses from Escom Mult-media.

News and Rumours

by Colin Dalton

CHRISTMAS is traditionally the Amiga's best sales period, so all eyes were on Amiga Technologies this Yuletide to see how it would perform under its new parents. After some initially promising sales figures, things were, it seems not all rosy.

January saw Amiga Technologies UK have its staff reduced from eight to a paltry two. The headquarters, CBM UK's premises in Maidenhead, were closed, will all operations being transferred to Escom UK's headquarters in Stansted. The reason for the layoffs given was "poor sales over Chrisitmas"—not encouraging.

The situation in Germany was better, with the poor UK performance being blamed on poor marketing. Sound familiar?

There have been conflicting reports on the level of development AT is putting into the Amiga. Rumours floating around the net indicate that AT is not, as was thought, devoting large resources to the PowerPC port of the operating system. It has been said that they are doing nothing at all, leaving Phase 5 as the sole company developing the OS. Journalists trying to contact AT to confirm or deny this rumour are not having emails or faxes answered. The plot thickens...

However, it was also reported that Olaf Barthel, author of Term, has been hired on a contract basis by Amiga Technologies. He says that there were others hired, and that he will take suggestions for upgrades and bugfixes to the OS at `bugs@sourcery.han.de`.

On a more encouraging note, an "Internet Surfing" A1200 pack is being put together. The pack includes a 14.4 or 28.8 kbit PCMCIA modem, mail, news, ftp and IRC software, as well as a new World Wide Web browser called Voyager. This has sparked some controversy, as Voyager is reputed to use MUI, an anathema to many Amiga users!

Internet access is to be provided in conjunction with IBM, who have points of presence in most corners of the globe, including Dublin.

Other good news is the impending release of the new 1564 monitor, a 15-inch model that scans from 15 to 64kHz, so covering all modes from PAL to the high-end graphics cards. The German price has been set at DM950, which is about £420.

Some of you may have also heard of the so-called A1200 Plus, which was to be an A1200 with a redesigned motherboard, sporting a 40 MHz 68030 and a SIMM socket for memory expansion. Well, as we go to press, it has been that this project has been cancelled. It is not known what has been lined up to replace it.

However, Amiga Technologies do plan to show a new model at the Cebit show in Germany, which starts on March 14th.

On the software front, Wordworth users will be glad to know that a new version is planned for release any day now. Features will include ARexx support (finally), footnotes, drag-and-drop style sheets, improved speed, backgroundprinting, macros and wizards. Digita are also releasing new versions of Organiser, Datastore, and Money Matters. More information from `sales@digita.demon.co.uk`.

Also due for imminent release are new versions of Quarterback, Quarterback Tools, Personal Paint, and IBrowse.

Classified Ads

Eurosonic CBs (2) Five mile range, includes mains transformers. Contact Gavin McConnon at 088 623567 or `alien@indigo.ie`.

Supra V.34 modems New in box with power supplies, all cables and PC software. Contact Gavin McConnon at 088 623567 or `alien@indigo.ie`.

Wanted Four 1Mx8 or 1Mx9 SIMMs. Must be cheap, will consider part exchange for SCSI hard disks. Conact Colin on 284 9549 or email `csdalton@tcd.ie`

JAM Spreads Its Wings

Jeff Walker

HELLO. I'm not the editor of JAM any more and I have some explaining to do. Not to mince words, I bit off more than I could chew, so I had to spit something out. After much searching of the soul and wringing of the hands, I spat out JAM.

Now then. Don't panic. JAM isn't folding. Well, except down the middle where the staples are, that is. JAM is in good hands. And many of you will know those hands. They are Larry Hickmott's hands.Larry, as long-time subscribers will recall, was my assistant a couple of years back. He was with me about eight months and then we parted company. Larry went off to pull his own cart, you might say. And pull it very well and very far he has.When I took on Larry as my assistant it was with the full intention of training him up on all aspects of running and producing JAM, and then, once he had a firm grip on the ropes, handing over total control to him, leaving me to go off and start some new projects. For reasons which are unimportant it didn't pan out that way. Nevertheless, that urge inside me to do something new kept growing, and shortly before Christmas I joined Bookmark Publishing to take on some new challenges. Careful thought went into whether I could face those challenges and still produce and publish JAM. I thought I could.

Book publishing, I have discovered, is a far more time consuming business than I anticipated. There are any number of little problems that crop up every day, most of which have to be sorted out there and then else someone else can't get on with their job.

The bottom line is I ran out of time. Even after only three months it became clear that I was doing both jobs—book publishing and JAM—poorly. Unlike in the past, because of my new commitments JAM had to take a lower priority, and I could see me killing it with neglect if I didn't act. So act I did.

JAM now belongs to L H Publishing. As the new owner, Larry naturally may do what he likes. I doubt if it'll change all that much, and I'm sure whatever changes Larry makes, if any, will be only for the better. Strange how things have worked out the way I planned, albeit via a different route. Anyway, as for myself, I fully intend to continue to write some bits and bobs for JAM in my spare time. Whether they get published or not will of course be up to the new editor. Don't imagine I'm turning my back on the magazine. It'll be a refreshing change to read it from the other side of the fence.

Before I hand over to Larry may I just thank everyone who has helped me and JAM over the past six years. There are too many of you to mention individually, but you know who you are. I hope I've paid my way with you all, but if I've any outstanding favours, you know where I am. Don't be shy. And don't be strangers. My phone number at Bookmark is 01525 713671; my fax number is 01525 713716; my e-mail address is `bookmark@hisoft.co.uk`.

The new contact details for JAM are:
Larry Hickmott
Just Amiga Monthly
L H Publishing
13 Gairloch Avenue
Bletchley

Diary Dates

Sunday, February 18 February's meeting, includes a look at the BeBox.
Sunday, March 17 Yes, we do have a meeting on St Patrick's Day!
Friday, April 5 Deadline for submission of articles for April Newsletter

Amiga CU-SeeMe

Karl Jeacle

VIDEO over the Internet isn't with us just yet, but the way things are going, it won't be too long. One of the most popular video conferencing programs that is freely available on the Macintosh, PC and now the Amiga is CU-SeeMe.

See You, See Me

The CU-SeeMe project (pronounced "see you see me") started in New York's Cornell University Information Technology organisation (CIT) back in 1993. The aim was to develop a network video-conferencing tool for the Macintosh which would run over local area networks, such as Ethernet, and make use of low-cost video cards and cameras.

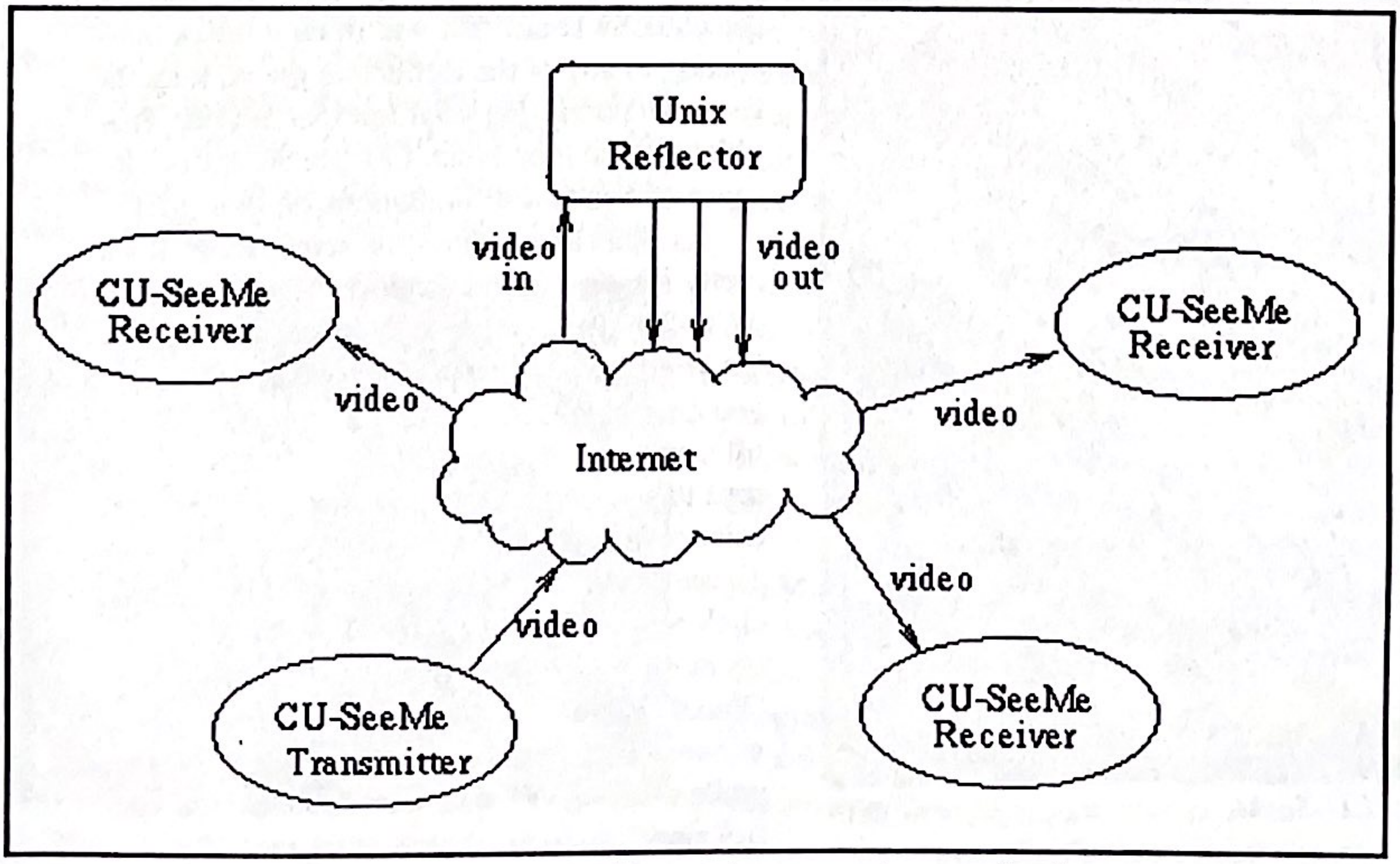
It wasn't long before a PC/Windows port was made, helping the user base grow in size. While this was happening, the number of users on the Internet was starting to rocket, and the inevitable happened: people started to use CU-SeeMe over the Internet with as little as a 14.4Kbps modem. Seeing this, the developers in Cornell started to add support for lower bandwidth links.

One of the reasons why using CU-SeeMe is feasible with just a modem is that the video requirements are not very high. Only 4-bit greyscale windows at either 320x240 or 160x120 are used for pictures of conference participants. Conferences can be one-to-one or multiparty, and you have the choice of being a receive-only participant (or "lurker"). So, if you don't have any video equipment, you can join in a conference in receiver mode with just your Amiga and a modem.

Reflectors

Point-to-point video conferencing is a fairly simple concept, and not too difficult to implement, but multiparty conferencing is something developers have always struggled with. The approach CU-SeeMe takes is to make use of something called a Reflector. At the time of writing, Reflectors are only available on Unix systems.

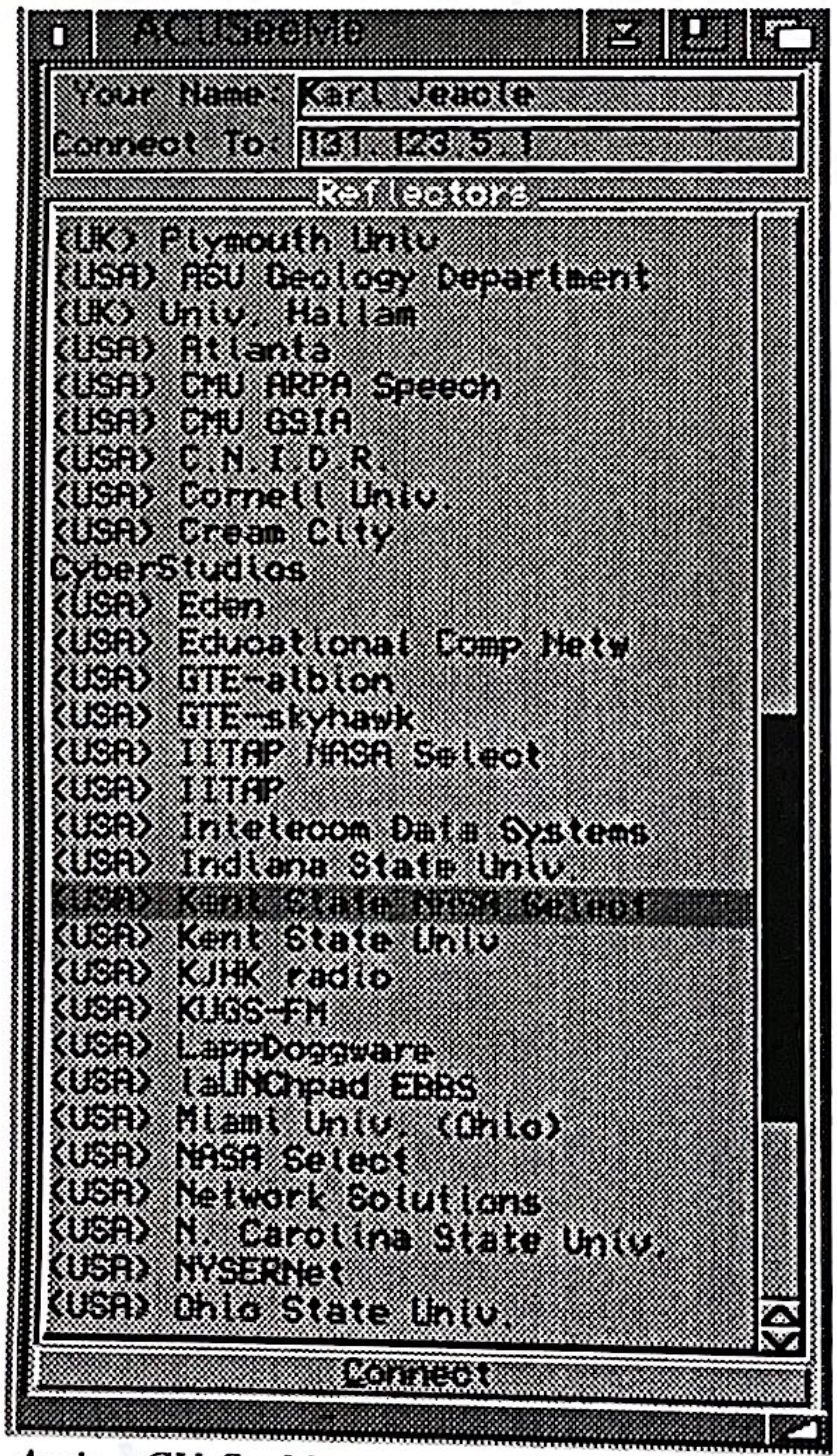
When you start CU-SeeMe, you are asked



How it works. A system of transmitters, receivers and reflectors.

for the name of a Reflector to connect to. Reflectors are a sort of conference server. They are where the video conference "takes place". There are lots of Reflectors on the Internet, mostly running in universities or research labs. Many Reflectors are just places where people hang out and test CU-SeeMe, while others only allow receivers to connect, as their sole purpose is to transmit a single source of video to the world. A good example of this would be NASA Select TV which carries live pictures of Shuttle launches and other NASA related material.

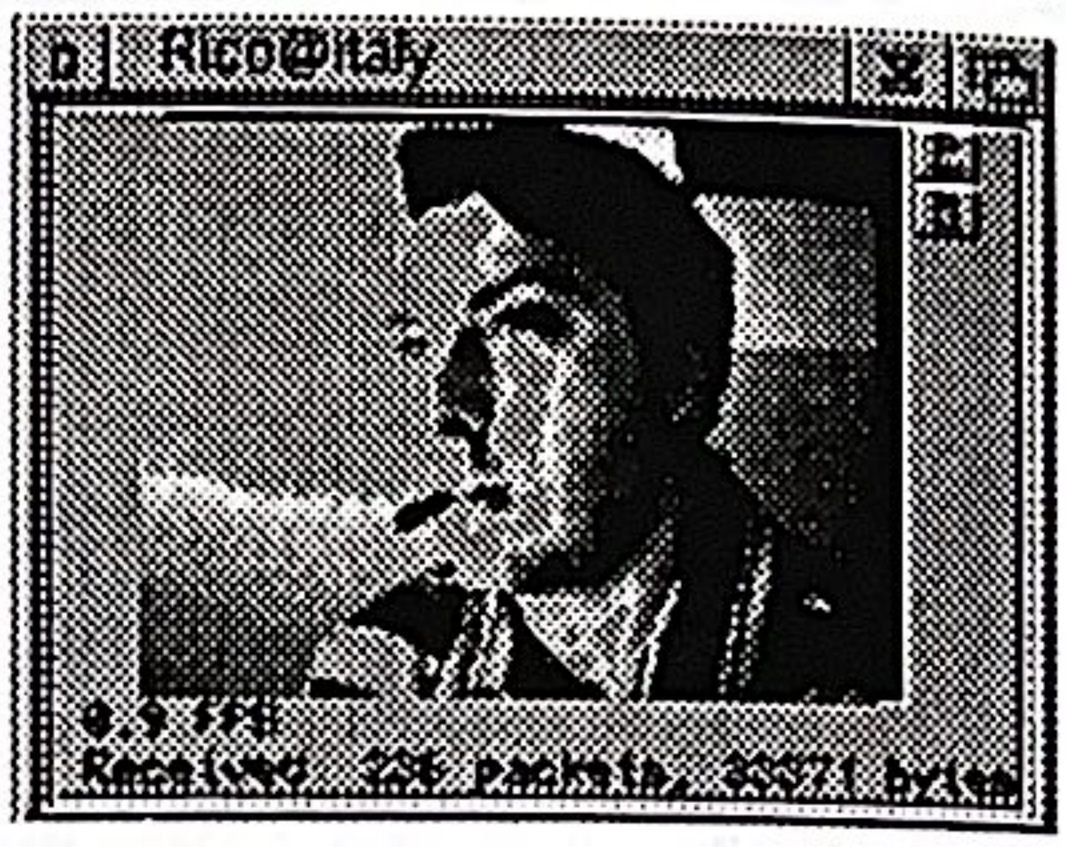
Reflectors work by taking in video traffic generated by CU-SeeMe clients and resending or reflecting each video packet back out to all receivers connected to the Reflector. This can be quite a large workload and is the reason why Unix systems were originally chosen to perform the task.



Your Name: Karl Jeacle
Connect To: 131.123.5.1

(UK) Plymouth Univ
(USA) ASU Geology Department
(UK) Univ. Hallam
(USA) Atlanta
(USA) CMU ARPA Speech
(USA) CMU GSIA
(USA) C.N.I.D.R.
(USA) Cornell Univ.
(USA) Cream City
CyberStudios
(USA) Eden
(USA) Educational Comp Netw
(USA) GTE-albion
(USA) GTE-skyhawk
(USA) IITAP NASA Select
(USA) IITAP
(USA) Intelecom Data Systems
(USA) Indiana State Univ.
(USA) Kent State NASA Select
(USA) Kent State Univ
(USA) KJHK radio
(USA) KUGS-FM
(USA) LappDoggware
(USA) laUNChpad EBBS
(USA) Miami Univ. (Ohio)
(USA) NASA Select
(USA) Network Solutions
(USA) N. Carolina State Univ.
(USA) NYSERNet
(USA) Ohio State Univ.

Amiga CU-SeeMe comes pre-configured with an impressive list of reflectors



0.9 fps
Received: 236 packets, 33571 bytes

A typical broadcast, received with CUSeeME.

Amiga specifics

The Amiga port of CU-SeeMe was written by Berend Ozceri and can be found on Aminet as acuseeme2_02.lha in the comm/tcp directory. This current version doesn't contain very much documentation, just a "readme" file, in fact. Fortunately, installing and using the program is pretty simple.

Basic requirements for ACU-SeeMe are Stefan Stuntz's Magic User Interface (MUI) and AmiTCP v3 or higher. Obviously then, you'll need an Internet connection and everything that that entails.

A Commodore Installer script is supplied, so installing the program is simple. A list of Internet Reflectors is also supplied which can be read by ACU-SeeMe. This list is in a standard format for Reflector listings, so you can update it any time if you get a newer copy. In the unlikely event that you draw a blank connecting to any of the Reflectors given, it might be worth contacting your Internet Service Provider in case they block CU-SeeMe traffic because of bandwidth limitations on their part.

As you can see from the screenshots, it's a pretty simple program to use. When you start ACU-SeeMe, you get a requester asking you for your name and a Reflector address. Once you enter these, you just click on connect, and off you go. If the Reflector responds, you will start to see names of other transmitters and receivers appearing in the control panel window. To see a particular transmitter, you just double click on his/her name. The "M" and "P" gadgets in the video window are for "Magnify" and "Panel". Clicking "M" will change the video window between the display sizes available, while clicking "P" will open and close the control panel.

Alternatives

There are currently no alternative Amiga video conferencing programs that run over the Internet. This is mainly due to the fact that there are very few Internet video conferencing tools available on any platform. The only real alternative to CU-SeeMe on the Internet is the Multicast Backbone or MBone.

The MBone uses a technique called "multicasting" which allows it to send out a single video packet, but address it to multiple destinations. This is a much more efficient system than the unicast method used by CU-SeeMe. A CU-SeeMe Reflector has to make an individual copy of transmitted video packets for each and every receiver listening.

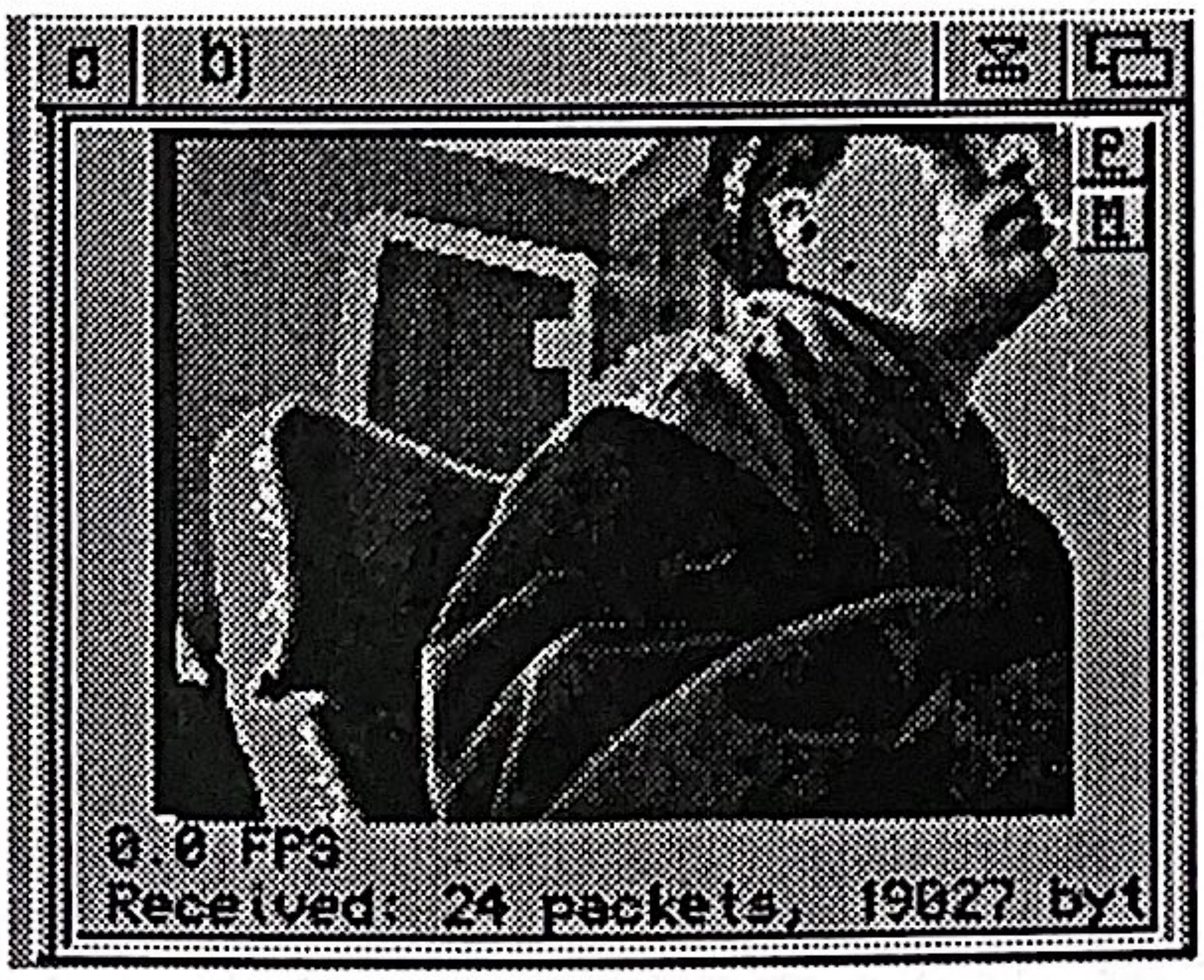
Unfortunately, most MBone tools are only available on Unix systems and haven't hit the regular desktop personal computer yet.

Want to know more?

For more information on CU-SeeMe, the best place to go is the World Wide Web. Cornell University naturally hold quite a lot of information about CU-SeeMe, but probably the best place to start is:

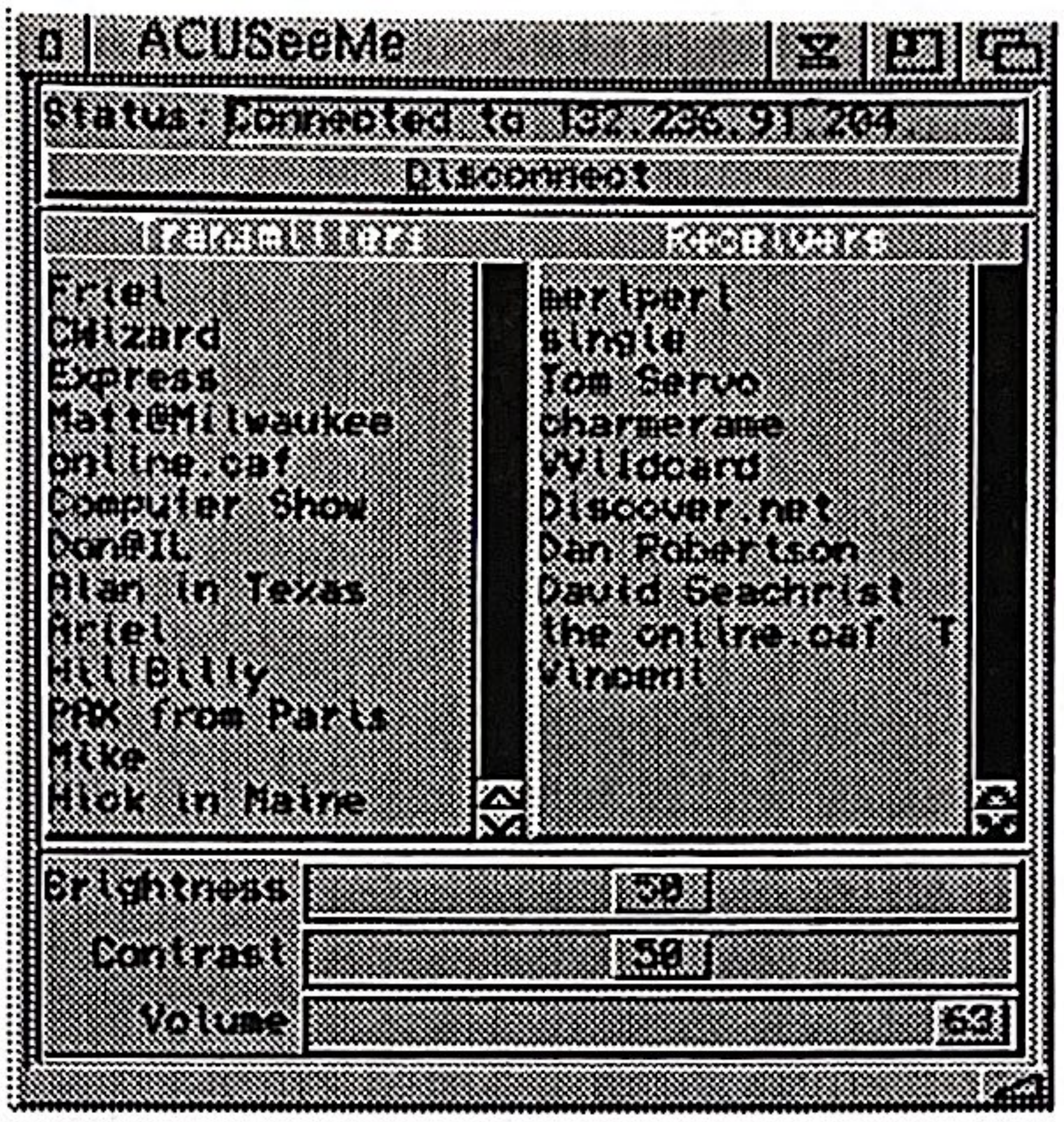
`http://www.jungle.com/msattler/sci-tech/comp/CU-SeeMe/`

This is a page maintained by Michael Sattler, who has been involved with CU-SeeMe for a number of years. He has written the first book available on CU-SeeMe, so if you don't have Web access or want more information than you can find on the Web, you might like to check it out. It's called "Internet TV with CU-SeeMe" and has an ISBN of 1-57521-006-1.



```
0.0 FPS
Received: 24 packets, 19027 byt
```

Not all reflectors have broadcast quality content, as the grab above shows!



Status: Connected to 132.236.91.204

Transmitters	Receivers
Friel	meriperl
CWizard	Single
Express	Tom Servo
Matt@Milwaukee	charmerame
online.caf	Wildcard
Computer Show	Discover.net
Don@IL	Dan Robertson
Alan in Texas	David Seachrist
Ariel	the online.caf T
HillBilly	Vincent
PAX from Paris	
Mike	
Nick in Maine	

Brightness 50
Contrast 50
Volume 63

Participants in a CU-SeeMe video conference.

The future

A company called White Pine Software have made an agreement with Cornell University which will allow them to produce enhanced, interoperable, commercial versions of CU-SeeMe. Cornell have said that they will continue to develop freeware versions, but obviously there is no guarantee that these will be as good as the White Pine Software offerings.

There have been no updates to the Amiga version for a little while, but hopefully the author is busy working away on the next update. At present, it's quite functional, but support for the different Amiga video cards is required if users are to transmit pictures and participate fully.

Such is the growth in popularity of CU-SeeMe, it is likely that even if Bernd 0zceri is unable to continue development of ACU-SeeMe, there will be plenty of other network programmers who will ensure that Amiga owners are not left behind when it comes to Internet video-conferencing.

A Christmas Tragedy

by Eddy Carroll

WELL, it's January again, a time for new year's resolutions to be made (and usually broken soon after). This year, however, there is one resolution I intend to keep: backups backups backups!

Of course, everyone knows how important a good backup is. After all, what if your hard disk crashed? Or a virus wiped out all your files? Or thieves broke in and stole your equipment? Or a freak light lightening storm zapped everything in your house? Or... well, you get the idea.

By now, you've probably guessed that I am not speaking hypothetically. In fact, those of you who attended the last CUGI meeting may already have put two and two together, particularly if you remember the trouble I had getting my A4000 up and running. After the meeting, I did some investigating, and discovered to my horror that the motor on my nice year-old 1.4 Gb Quantum drive had completely seized, rendering the drive useless. (Well, not *completely* useless—for the first five seconds after powerup, it now makes a distinctive squealing sound which would make a great addition to any Amiga MOD file.)

How bad could it be?

Being the optimistic person I am, it took quite a while to persuade myself that this had really happened. I tried all the sensible options: changing the power supply, changing the SCSI card, changing the computer, and changing the SCSI cable. In the end, though, I had to face reality, and start thinking about a recovery plan.

Now, bear in mind that this drive held the sum total of everything I've ever done on the Amiga since I purchased my original A1000 back in 1986 — a good 9 years worth of documents, source code, utilities, and so on. Bearing this in mind, I'd have to be crazy not to have backed it up at least somtimes, right? And actually, I did back it up from time to time. In fact, two years ago, I bought a bargain-priced DAT tape drive for exactly this purpose.

However, it's not enough to backup: you must backup regularly. When I went to get my most recent backup, I discovered that it was dated February 1995! Oops. However, the fun was just beginning.

Every cloud...

As many of you know, Infomatique BBS went offline a few months ago, after its A3000 went to the great Commodore warehouse in the sky. The silver lining to this cloud was that I was able to requisition Infomatique's 1.8 Gb drive as a temporary replacement, so at least I had somewhere to reload my backup. Unfortunately, my A2091 SCSI controller only has revision 6.6 ROMs, and so can't partition drives larger than 1 Gb. To the rescue came our able new editor, Gavin, who lent me his own A3000 for a few days.

Using Gavin's A3000, I was able to repartition the 1.8 Gb drive to match my original configuration, and then restore my backup from the DAT tape. But wait? What's that list of errors appearing in the status window? Wait some more ... "Aborted due to excess errors"—and it hasn't even got past the first partition yet? Oh God!

After several failed attempts to restore the February '95 backup, I was forced to admit that the tape had somehow become corrupt. So much for the infamous reliability of DAT, I thought to myself. Onto Plan B, a November '94 backup I had luckily kept. But it was not to be—this tape had just as many errors as the first! And my data was still a long way from being recovered.

Call in the experts..

At this stage, I began to get seriously worried. Worried enough to call Ontrack Data Recovery in the UK. Ontrack are authorised by Quantum to open their drives in a clean room environment, and then use their own specialised equipment to recover data from the disk's surface. Perhaps this would offer a solution?

When I got through to Ontrack, I spoke to a nice man called Nick who had never heard of the Amiga ("Yes, but what kind of PC is that?") but who was more than happy to fax me a copy of their standard contract. This duly arrived 30 minutes later, along with the information that for this recovery, Ontrack would be happy to charge me a £200 diagnostic fee to determine what the fault was, along with a further recovery fee of £500-£1000, depending on how serious it was.

So essentially, I was looking at a minimum cost of at least £700 — or over twice the replacement value of the drive! Although you can't put a price on some things, I decided that perhaps my data wasn't quite *that* valuable—at least, not until I'd explored absolutely every other option!

Next to Godliness

Then a brainwave struck me: perhaps the heads on my DAT drive were dirty! After all, I had no recollection of having ever cleaned them, and while the drive wasn't exactly being overworked, it seemed likely that dust might have accumulated while it was lying idle.

Next stop, Willis Computer Supplies in Dun Laoghaire, who stock a range of DAT products, including head cleaning cartridges. I bought two, just to be safe, and a few blank tapes as well for future use. This was my first experience with DAT head cleaning tapes, and they are in fact quite nicely designed—they have a special marking that allows the tape drive to distinguish them from normal tapes. When you insert one, the tape unit automatically plays it for just the right amount of time to give the heads a good cleaning without causing too much abrasion, whereupon the tape is automatically ejected. Each cartridge is good for about 30 cycles, and since the cleaning tape is never rewound, there is no danger of dirt getting back into the mechanism.

But enough of the accolades for Sony engineers—what about my data? Well, after giving the tape heads a good cleaning, I eagerly reran my backup software and tried once again—and was greeted by the same list of errors! Cleaning the heads had made absolutely no difference!

By this stage, I was almost out of ideas. I finally decided, as a last resort, to move the DAT unit back to my A4000, and try it there—maybe the slower transfer speed of my A2091 would allow it to retry more often when it encountered an error, or something (by now, I was ready to believe anything).

And lo and behold, it worked! The very first attempt I made to restore my data worked 100%, and I was able to retrieve my files. Certainly, they were ten months old, but since I had been in the US for almost six of those months, and hadn't had much time for Amiga work during the remaining four, it was not quite as out of date as I had first feared. In addition, I tend to keep copies of the files I update most regularly (such as my online phonebook) on several other computers as well, so it was fairly easy to obtain uptodate copies of these.

But what had gone wrong in the first place? Well, it turns out than on early models of the A3000, Commodore made a small mistake—a power diode on the external SCSI port was accidentally installed back-to-front, which resulted in improper termination on external SCSI devices. The reason I had been experienced so many errors was simply because the tape drive appeared to be improperly terminated when used on the A3000.

But of course, if I'd known that at the start, I wouldn't have had nearly as much fun during the run up to Christmas...

The story does have a happy ending: after contacting Quantum in the US, they directed me to Quantum's brand new Customer Service centre in Dundalk, and the kind people there agreed to replace my drive with no questions asked, since it was still covered by warrantee.

So, folks, the moral of the story is, keep your backups up to date! This time, I was lucky—but things could so easily have been much worse.

MUI-Based Port Shocks Computer World

By Daniel Barrett

CHICKENMILK, WI — December 1, 1995 — BLAZEMONGER INCORPORATED, creator of the ultra-violent BLAZEMONGER™ series of games, announced today that the next version will run on the Power Amiga, Escom's upcoming PowerPC-based computer.

"Yes, we're aware that the computer doesn't exist yet," said Bobby Blazebleeder, First Programmer and Death Lord of BLAZEMONGER INC. "That's never stopped us before. We'll be finished in about three hours. Then it will be Amiga Technologies' job to catch up."

The updated program, "BLAZEMONGER 961" (subtitled "Return of the Skin-Peeling Kitchen Utensils of Fate") will feature the company's trademarked cataract-inducing graphics, eardrum-piercing sound, and the

latest new development, "ScentSurround." Loosely based on the similarly-named movie theater gimmick from the 1970s ("Sensurround" would shake movie viewers' chairs at appropriate moments), the "ScentSurround" system connects a thin tube from the Amiga's external floppy port to the user's nose and mouth. At crucial points in the game, top-secret chemicals are sprayed into the user's nasal passages. "You should see what people do when they inhale dragon pheremones," said Blazebleeder. "No, on second thought, you shouldn't."

Even stranger is BLAZEMONGER INCORPORATED's announcement that the next version of BLAZEMONGER will be based on MUI 3.1. "I can't believe it," said a stunned Harv Laser, Emperor-For-Life of the Amiga Zone on Portal. "Who... who would have suspected that BLAZEMONGER's ultimate programmers needed a GUI builder to help them code? Sigh. I have lost all my faith in life and will probably sell my body to Atari for spare parts."

Jim Drew of Utilities Unlimited was quick to confirm that BLAZEMONGER would definitely run under the "Q" operating system as well. (Rumor has it that "Q" is based, at least in part, on disassembled BLAZEMONGER code.)

Other industry pundits take a harsher view. "I predicted over twelve billion years ago that this would happen," chortled Mork Bannett, editor-in-chief of *The Rag-On-Commodore Rag*. "Blazemonger is a big phony. I don't even think it exists, and here is proof." Unfortunately, our interview was cut short by the timely arrival of the BLAZEMONGER "Customer Service" department.

But it appears that BLAZEMONGER INCORPORATED may have the last thousand-decibel laugh after all. "Those WIMPFACE industry 'pundits' are scared of their own 3-D shadows," said Blazebleeder. "'MUI' is really the code name for our own, homebrew user-interface builder, MUTILATION USER INTERFACE. It is far more powerful and MUCH more violent than the 'other' MUI, MagicUserInterface by Stefan Stuntz. You want configurability? MUTILATION USER INTERFACE lets you configure not only the appearance, size, and location of every monster in BLAZEMONGER, but also the speed, memory size, and number of processors in your computer! Just set the tooltype 'PROCESSORS=64000' and you basically have a Connection Machine supercomputer for under a thousand dollars."

Escom is reportedly "pleased" about its new association with BLAZEMONGER INCORPORATED. "They're pretty clever d00dz," said Dr. Peter Kittel, Vice-President of Small, Furry Mammals at Amiga Technologies. "Their developers located a serious bug that we'd missed in our beta version of AmigaDOS 4.0. Rather than fix it, though, they actually rewrote the REST of the operating system to turn the bug into a feature! That takes GUTS, not to mention serious mental derangement."

Watch for "BLAZEMONGER 961" coming soon to a dealer near you!

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XOpa: A system monitor

by Eddy Carroll

MANY years ago, a German called Werner Günther released a freeware utility called XOper. This was the first widely available utility that let you lift the lid on the internals of AmigaDOS.

Since then, several other similar utilities have appeared—ARTM is probably the most well known. These update the XOper interface to take advantage of Workbench 2.0 features, and occasionally offer some new capabilities as well. However, they generally do little that couldn't already be done using XOper, if you were determined.

Now there's a new kid on the block: XOpa, by Axel Dörfler and Alexander Bartz. It's easy to overlook, since both the program and documentation are completely in German. However, this is only a minor annoyance, especially if you're already familiar with how such utilities operate.

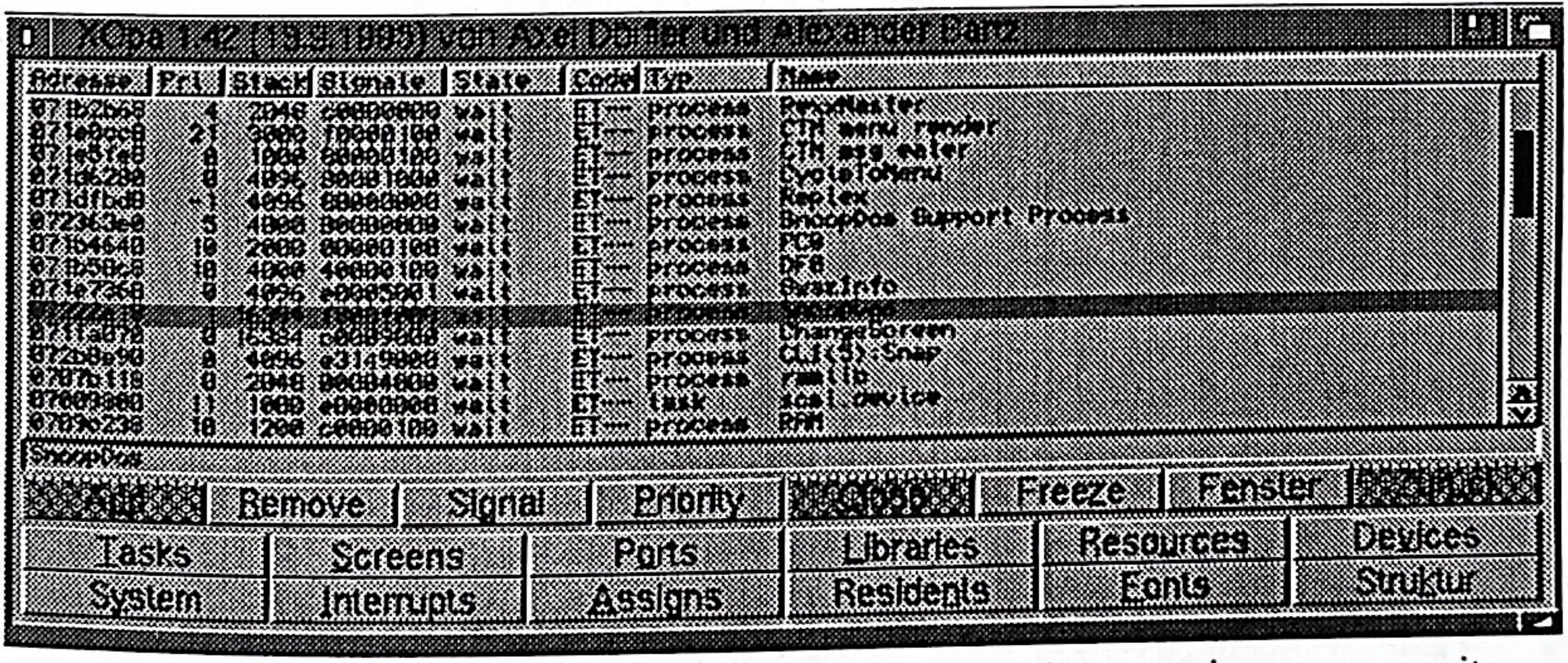
Unlike the others, XOpa goes one step further by allowing you to customise the information it displays. Although it offers all the usual facilities to view tasks, libraries, fonts, devices, and so on, each item it displays is "live"—you can double-click upon it, and be shown the actual structure it represents. If that structure contains links to other structures, you can double-click on those links, and be taken there immediately.

If you're an Amiga programmer, this is a great way to browse through the system structures to find out how everything interacts. The structures browsed by XOpa are not hard-coded either—they are stored in a file called Xopa.structs. (A similar file, Xopa.boards, contains details of the Zorro II and Zorro III cards in your system).

Unfortunately, I haven't yet had much luck in getting XOpa to read this file—from my limited understanding of the German docs, this feature appears to be only supported in the registered version. Still, the concept is sound, and I may register to get full access to this powerful feature.

There are lots of nice touches that make using XOpa a pleasure. If you're browsing the font list, double-clicking a font pops up a window showing the alphabet displayed in that font. If you select the list of Assigns, buttons allow you to add or remove assigns from the list. Clicking on the "Fenster" (Window) button when a task is highlighted displays a list of all the windows owned by that task.

I could go on, but the best way to see these features in action is to grab a copy of XOpa for yourself. You can find it on any Aminet FTP site in the `/aminet/util/moni` directory as `XOpa.lha`, and it's also available on the Complete Aminet II set of CDs in the CUGI library.



Not just a pretty face? XOpa offers several features not found in any other system monitor.

Visual Arexx

by Kevin Phair

WHAT is VArexx? Put simply, it allows you to create GUIs for your Arexx scripts. Creating a GUI is simple enough, and is done using Jan Van den Baard's well-established "GadToolsBox."

This essentially means that you can drag and drop gadgets using multiple windows (it is possible to create scripts that support asynchronous windows), and then control them via ARexx. The communication is two-way, so as well as controlling gadgets, you can receive messages from them, so that a user can enter parameters into a string gadget and the ARexx script can then do what it likes with that value, including placing it into another gadget (or gadgets.)

How does it work?

Of course, the actual creation of an ARexx script to handle all of this interaction is going to be difficult, right? Not so, in fact it's no more difficult than writing a typical script, perhaps a bit easier since your user interface is already taken care of. Below is an example GUI that I have created for this article. As you can see, it consists of one text gadget, one listview, one string gadget, and two button gadgets.

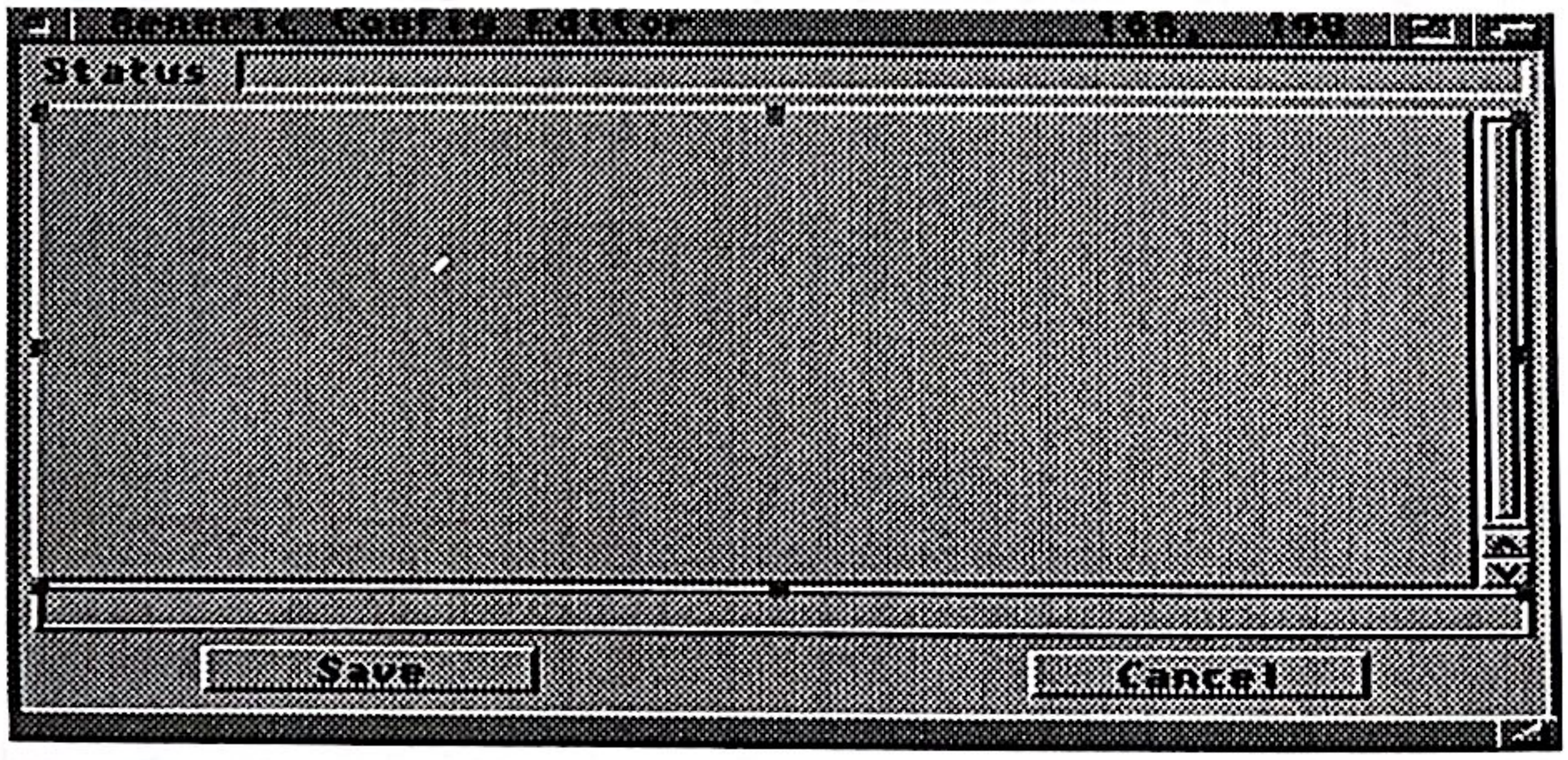
After placing the gadgets and labeling them, the GUI is then saved to a file, and then the fun begins... The code for that GUI follows at the end of the article, so those of you who known how to create gadgets using GTB can enter the source and see just how it works.

What it does is simply open a file named as a command-line parameter, load each line into a stem variable, display that in a listview, and allow you to pick any line and change it. Implementing the save feature is left as an exercise for the reader, and any of you reasonably knowledgeable in ARexx will have no trouble coding this.

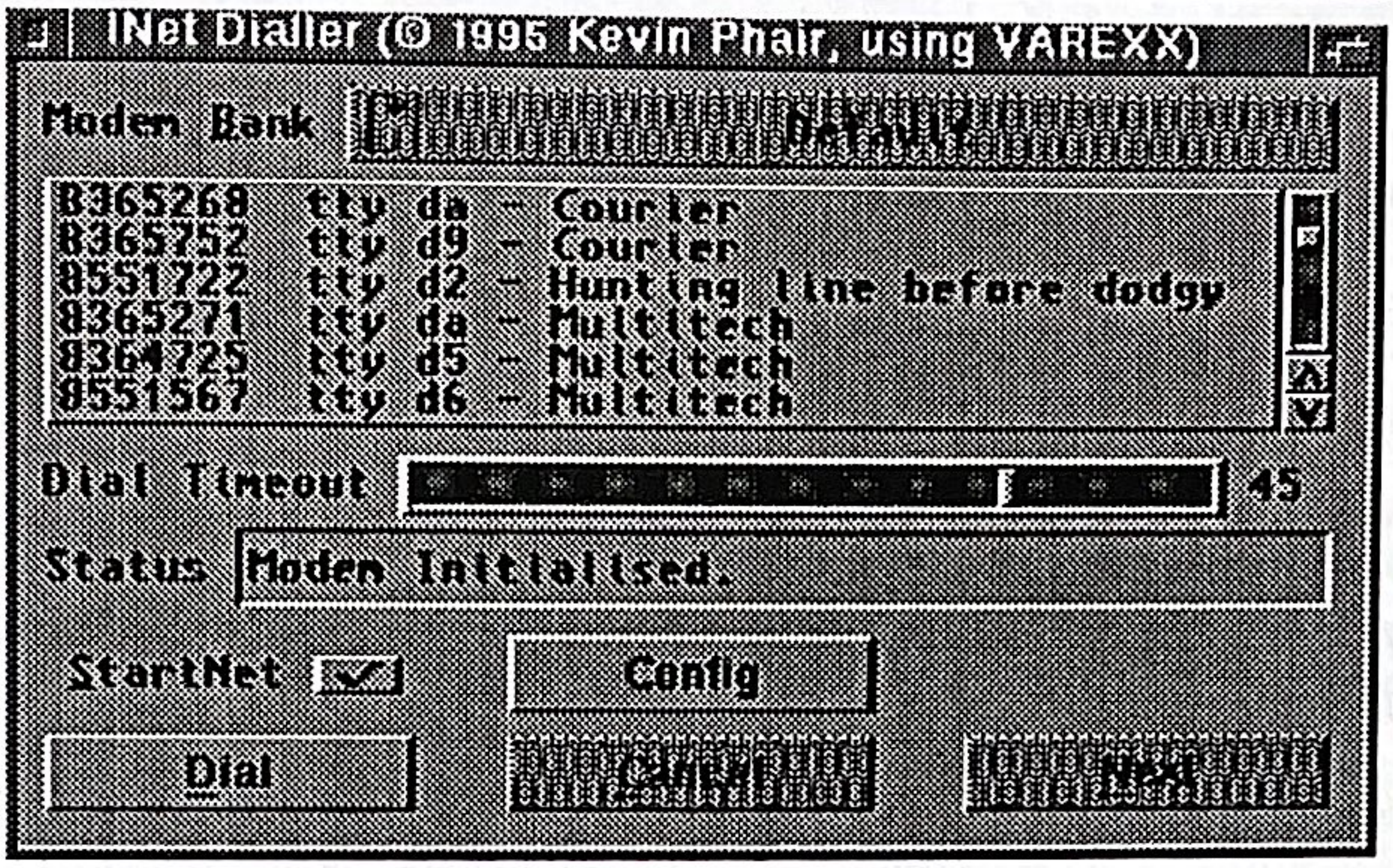
The basis of a successful GUI in any language is responsiveness and neat layout. The latter part is taken care of during the design and modification within GadToolsBox. You might think that because ARexx is an interpreted language that your GUI is going to be really, really slow, but this need not be the case if you take advantage of the event-driven nature of message ports.

This is accomplished by the use of the rexxsupport.library function, OpenPort(), which creates a message port on the system. In this case, the message port will be attached to a window and messages to and from this window will be transferred via the message port.

Because of all this, as soon as the user clicks on a button, listview, or any other active gadget in the GUI's window, the ARexx script will be immediately woken up if in a waiting state and it can then determine if the message is of any importance. This is infinitely better than the



A Simple GUI created with GadToolsBox and VArexx script continually checking to see if a message is waiting, because it uses virtually no CPU time at all, and the script is always ready for processing a message (except, of course, when it is acting on a received message, in which case messages are queued.)



```
8365268  tty da - Courier
8365752  tty d9 - Courier
8551722  tty d2 - Hunting line before dodgy
8365271  tty da - Multitech
8364725  tty d5 - Multitech
8551567  tty d6 - Multitech
```

Status: Modem Initialised.

StartNet ☑

Here's an example of a dialer program I wrote

Should I be interested?

If you use GadToolsBox for creating other kinds of code ('C', BASIC, Oberon, Asm, etc.) then you will probably also find that VArexx provides you with the ability to quickly prototype the framework of an application, or even save you having to code the window structures, and VArexx simplifies the handling of IDCMP messages. It also idea just for testing a user interface to see how the various gadgets and windows interact without having to write much code at all. It also means that there are no compile times to consider, and if you choose to keep the ARexx code, then it means that a user can modify the layout of the program's user interface beyond the wildest imaginings of MUI, BGUI, Triron, etc. See the pictures below for an example...

Here's an example of a dialer program I wrote, first in one layout, and then in a completely different layout, but with absolutely no need to modify the script itself. This is not just changing colours and patterns, this allows the user to have final say in the actual implementation of the interface.

The same can be done for the IP, user and modem configuration windows also contained in the GUI.

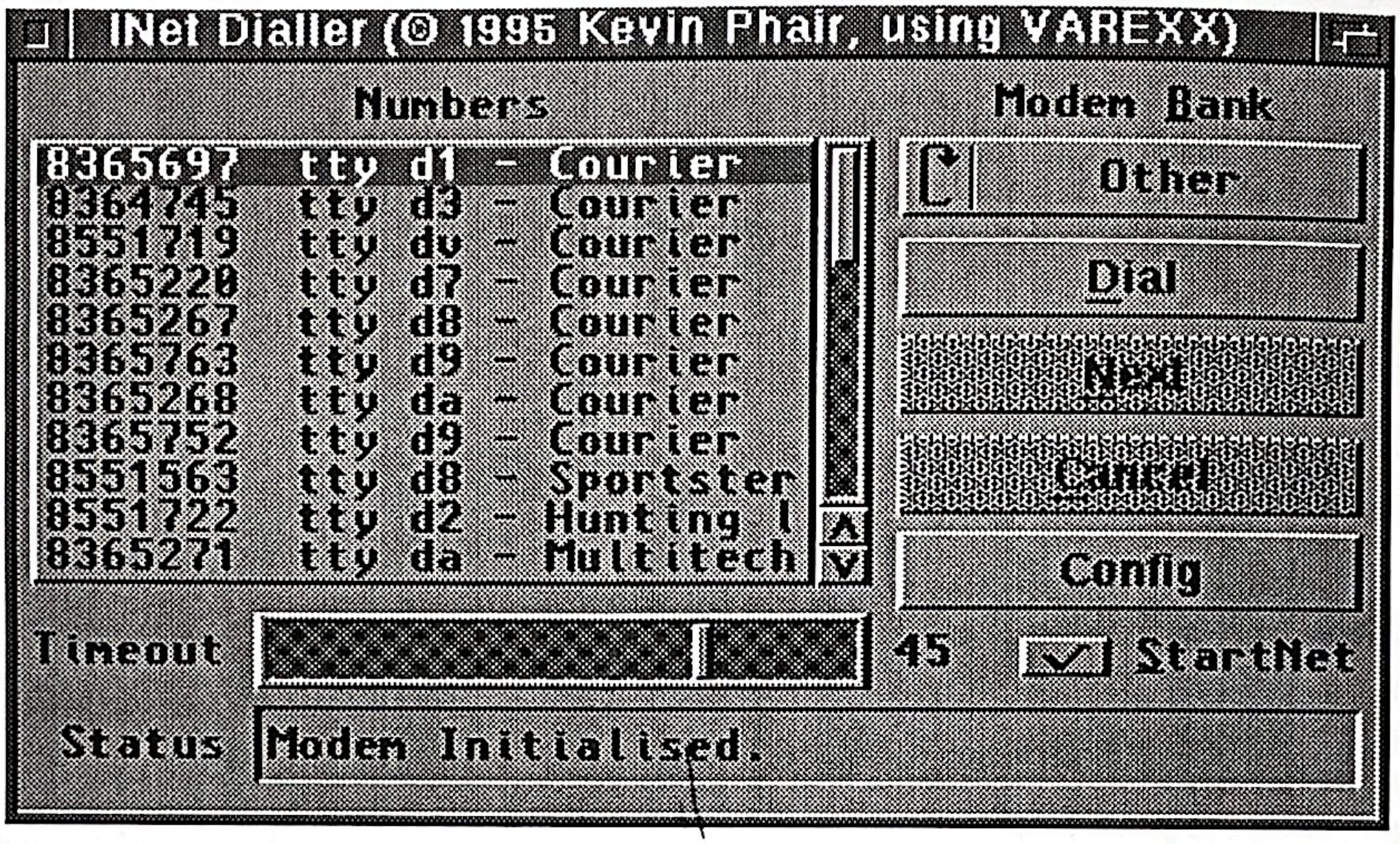
Is it difficult to learn?

In its simplest form, the code required to create a functioning program is quite minimal, and not much more than would be required for a similar command-line-driven application. If you know ARexx then you'll love VArexx, if you don't know all that much ARexx, VArexx gives a good inventive to learn. Presented below is an example of a complete, albeit useless, program.

```
/*- VArexx demo 1 -*/
if ~show('L',"rexxsupport.library")↲
    then
if ~addlib('rexxsupport.library',0,↲
    -30,0) then exit 30
/* Check VArexx is loaded and if not,
load it */
if show('p','VAREXX') ~= 1 then do
address command 'run VArexx'
waitforport VAREXX
end
options results
call openport("VArexxDemo1Port")
/* Create msg port */
address VAREXX
'load VArexxDemo1.gui
VArexxDemo1Port'  /* Load GUI file
*/
VRXhost = result
/* Get host process name */

address value VRXhost
/* Address the window host      */
'show' VArexxDemo1Win
/* Open the window              */
address AREXX
/* So's not to confuse VAREXX */

do forever
```



INet Dialler (© 1995 Kevin Phair, using VAREXX)

Numbers

```
8365697  tty d1 - Courier
8364745  tty d3 - Courier
8551719  tty du - Courier
8365220  tty d7 - Courier
8365267  tty d8 - Courier
8365763  tty d9 - Courier
8365268  tty da - Courier
8365752  tty d9 - Courier
8551563  tty d8 - Sportster
8551722  tty d2 - Hunting l
8365271  tty da - Multitech
```

Timeout 45

☑ StartNet

Status Modem Initialised.

```
        call  waitpkt("VArexxDemo1Port")
/* Wait for window msg      */
packet=getpkt("VArexxDemo1Port")
/* Retrieve msg */
if packet ~== '00000000'x then do
/* Is it for me?            */
  class = getarg(packet)
/* Analyse msg packet       */
  type = word( class, 1)
/* Get type of msg          */
  if type = closewindow then leave
/* Obvious...               */
end
end
address value VRXhost
/* Address window host      */
      'hide' unload
/* Close window and host */
      address AREXX
/* Back to ARexx again      */
call  closeport("VArexxDemo1Port")
/* Remove msg port          */

exit 0
/* Back to CLI */
```

All that program does is open a window called "VArexxDemo1Win" and wait for the user to click the close gadget. That script is all that's need to set up a GUI, respond to it, and clean up. In the code at the end of this, you'll see a way of cleaning up that's a little bit more professional, since it's possible that something else might have closed the message port, or even that the window didn't open!

Also, one of the great advantages of VArexx is that you don't need to buy a relatively expensive compiler if all you plan on doing is writing simple applications using ARexx, which is a very easy and forgiving language. Granted, there have been other GUI layout support libraries for ARexx, but they really haven't even come close to this. ARexx is also a pretty forgiving language, with good support for tracing and interactive debugging, and you're not likely to get "8000 0004" software failure errors because you dereferenced a pointer instead of dotting it! ;-)

Conclusions and dawbacks

VArexx is not a complete replacement for a compiled language. There are always going to be cases where a compiled language has the edge, especially if you need custom gadgets, graphic windows, scrollable bitmaps etc. For general purpose tools, however, it's now possible to write something quickly, which has a GUI interface, which doesn't take much disk space, and which is easy to change at any time, which

---

includes the possibility of
Amiga, changing the code
aed, and having it run right
the machine without havi
compile stage. Indeed, if y
an Amiga and debug a VA
then you could see the trace
sole as the remote user click
you both communicate thro

Needless to say, VArexx
the scope of ARexx, since it
a script that would retrieve
a newsgroups and downloa
were of interest, perhaps ac
content, maybe even by b
from clicking in a listview.
ity would be writing a scrip
trol centre for InfraRexx co
applications or performing
gadget settings, disk conte
like.

Of course, there are so
of the most noticeable (for
rent inability to change or i
ets without resorting to us
the GUI file - all you can d
gadget selection, or get the
also doesn't currently sup
IntuiTexts, BevelBoxes o
Neither does it support eve

```
/*VArexx demo for CUG

/*Opens up a window w
a couple of buttons.
*/

/*-----------------------------
if ~show('L',"rexxsup
if ~addlib('rexxsuppo

/* Check Varexx is lo
if show('p','VAREXX'
   address command 
   waitforport VAREX
end
/* Set custom break s
signal on break_c
options results
```

includes the possibility of telnetting to your Amiga, changing the code using emacs, vi, or aed, and having it run right away for the user at the machine without having to go through a compile stage. Indeed, if you were to telnet to an Amiga and debug a VArexx-assisted script, then you could see the trace output on your console as the remote user clicked on gadgets, while you both communicate through a talk session...

Needless to say, VArexx imediately extends the scope of ARexx, since it's now easy to write a script that would retrieve article headers from a newsgroups and download only the ones that were of interest, perhaps according to overview content, maybe even by building up a listing from clicking in a listview... Another possibility would be writing a script to act a main control centre for InfraRexx commands, launching applications or performing tasks depending on gadget settings, disk content or whatever you like.

Of course, there are some downsides, one of the most noticeable (for me) being the current inability to change or initialise cycle gadgets without resorting to using GTB to change the GUI file - all you can do it change the cycle gadget selection, or get the current selection. It also doesn't currently support the display of IntuiTexts, BevelBoxes or custom gadgets. Neither does it support every single one of the intuition messages that a window can generate, although it does support most of them, including diskchange, window activate, deactivate, resize, and position change events. Although mouse and keyboard events are not passed onto the script, underlined shortcut keys in the GUI's gadgets will cause gadget message to be generated when the appropriate key is pressed, and scroller gadgets can generate a stream of messages. Menus are not supported yet, but given that VArexx would probably not be used to write a full-blown application like a word processor, spreadsheet or 3D modeler, then this is not too much of a hardship, although it would be a nice addition.

One caveat is that you should design your GUI using Topaz/8 or similar, if you want it to size properly to users' font preferences when the GUI is displayed for real. At the moment, since VArexx doesn't open custom screens, the easiest way to ensure this is to design your GUI on a custom screen using Topaz/8.

I'd recommend all programmers, and anyone interested in ARexx to have a look at VArexx and the demonstration scripts in the archive, if only to see what's now possible with ARexx, and you may have noticed the word "easy" popping up a few times...

Sample demo script to accompany the GUI:
<file "VArexxDemo.rexx">

```
/*VArexx demo for CUGI Newsletter ————————————————————*/

/*Opens up a window with a listview, string gadget, text gadget, and
a couple of buttons. Basically it is a very simple text editor.
*/

/*———————————————————— © 1995/96 Kevin J Phair -*/
if ~show('L',"rexxsupport.library") then
if ~addlib('rexxsupport.library',0,-30,0) then exit 30

/* Check Varexx is loaded and if not, load it */
if show('p','VAREXX') ~= 1 then do
    address command 'run varexx'
    waitforport VAREXX
end
/* Set custom break signal handler */
signal on break_c
options results
```

```
/* Get command line argument and check for validity */
parse arg EditFileName
if EditFilename == “” then do
    Say “Must have an input file name!”
    exit 30
end
else do
    if open(‘infile’,EditFileName,”R”) then do
        close(‘infile’)
    end
    else do
        say “Error opening file.”
        exit 30
    end
end
/* Create a message port for the window we will open */
call openport(“VArexxDemoPort”)

/* Load the GUI using VArexx, and get host port into VRXHost */
address VAREXX
‘load VArexxDemo.gui VArexxDemoPort’
VRXhost = result

/* Display the window */
address value VRXhost
‘show’ VArexxDemoWin
address value VRXhost
‘settext’ Status_text ‘Reading in config file’
address AREXX
/*
 * Read the input file in line by line, allocating each line
 * within each item of a stem variable. Skip blank lines.
 */
linecounter=1
if open(‘infile’,EditFileName,”R”) then do
    do while ~(eof(‘infile’))
        textline=readln(‘infile’)
        if word(textline,1) ~= “” then do
            EditLine.linecounter=textline
            linecounter=linecounter+1
        end
    end
    close(‘infile’)
end
linecounter=linecounter-1
/* Set up the listview */
EditLine.COUNT=linecounter
EditLine.SELECT=1
address value VRXhost
‘setlist’ Items_listview CLEAR STEM EditLine
‘settext’ Status_text ‘Ready for editing’
‘settext’ Items_string EditLine.1
address AREXX
currentline=1
```

```
do forever
    /* Wait for a message for the window message handler */
    call waitpkt(“VArexxDemoPort”)
    /* Get message and process it */
    packet=getpkt(“VArexxDemoPort”)
    if packet ~= ‘00000000’x then do
        class  = getarg(packet)
        type = word( class, 1)
        msg = substr( class, length( type ) + 1 )
        select
            when type = closewindow then leave
            when type = Save_button then do
            end
            when type = Cancel_button then leave
            when type = Items_Listview then do
                address value VRXhost
                ‘settext’ Items_string msg
                read Items_listview NUMBER
                currentline=result
                address AREXX
            end
            when type = Items_String then do
                address value VRXhost
                EditLine.SELECT=currentline
                EditLine.currentline=substr(msg,2)
                ‘setlist’ Items_listview CLEAR STEM EditLine
                address AREXX
            end
            otherwise
        end
    end
end

call cleanup

exit 0

/* Code to tidy up loose ends before an exit */
cleanup:
    address value VRXhost
    ‘hide’ unload
    address AREXX
    if show(“P”,”VArexxDemoPort”) then do
        call closeport(“VArexxDemoPort”)
    end
    return 0

/* Exit point for ctrl-c break signal */
break_c:
    call cleanup
    exit 20
```

The CUGI Library

by David Fitzgerald

THE CUGI library has a good selection of technical books pertaining to the Amiga, including works such as the ROM Kernel Reference Manuals (for 1.3 as well as 2.0), guides to the 68000 CPU and 68881/68882 FPU, and 'C' programming references. Also of interest to programmers is the *User Interface Style Guide*, which is the official guide on creating a standard user interface.

There are also some more general books, for example, the *Desktop Video Guide* and *Amiga Tricks and Tips*. If you have one of the older Commodore machines, such as the C64 or C128, you'll find plenty of books relating to the hardware and programming of those machines.

You are probably aware that the CUGI library also has some hardware available for loan. This includes an audio sampler, a video digitiser (the VIDI-12) and a hand-held scanner. Other items of general interest are Amiga-related videos and previous issues of the CUGI newsletter.

Here is a list of what is available through the library. This list is also available on CUGI-BBS which, to remind you, recently changed number to (01) 837 0204.

Commodore Reference Manuals

Amiga ROM Kernel, Libraries (2.0)
Amiga ROM Kernel, Devices (2.0)
Amiga ROM Kernel, Includes and AutoDocs (2.0)

Amiga ROM Kernel, Style Guide

Amiga ROM Kernel (full set of Kickstart 1.3 volumes)
AmigaDOS Manual 3rd Edition
Workbench 3.0 User‘s Guide
Workbench 3.0 User‘s Guide AGA Supplement Enhancer Software (OS 1.3 reference)
Using the System Software (OS 2)
A2000, A500 Amiga BASIC Manual
A1200 User‘s Guide
A1200 User‘s Guide Service Supplement
1084S High Resolution Monitor Reference Manual
A590 Reference Manual

C Programming

Amiga C for Advanced Programmers (Abacus Books)
New C Primer Plus (The Waite Group)
The C Library (McGraw-Hill)
The C Programming Language - 2nd Edition (Kernighan and Ritchie)
Programming in C
C quick reference (Que)

General Intere

AmigaDos Inside and
Amiga Disk Drives I
Amiga for Beginner
Amiga Intern
Amiga Tricks and T
The Amiga System
Compute!'s Beginne
Kids and the Ami
Amiga Applicati
Amazing Compu
CD-ROM (vol 2
Looking good i
Amiga Format
ICPUG Newsl

Graphic

Becoming a
Deluxe Pain
"Amiga Wo
Using Delu
Amiga De
Amiga De
"Video T

Prog

Amiga
Amiga
Amiga
6800
MC6
Ami
Map
Mic

C

C
C
(

General Interest

AmigaDos Inside and Out (Revised Edition also)
Amiga Disk Drives Inside and Out (Abacus Books)
Amiga for Beginners
Amiga Intern
Amiga Tricks and Tips (Abacus Books)
The Amiga System: An Introduction
Compute!'s Beginners Guide to the Amiga Amiga for Beginners (Abacus Books)
Kids and the Amiga (Compute!)
Amiga Applications (Compute!)
Amazing Computing's guide to the Amiga (summer 92)
CD-ROM (vol 2) Optical Publishing (Microsoft Press)
Looking good in print
Amiga Format Book
ICPUG Newsletters

Graphics

Becoming an Amiga Artist
Deluxe Paint II User's Manual
"Amiga World" Official AmigaVision Handbook Inside Amiga graphics (Compute!)
Using Deluxe Paint - 2nd edition (Compute!)
Amiga Desktop Video Power (Abacus Books)
Amiga Desktop Video Guide (Abacus Books)
"Video Toaster User" magazines

Programming

Amiga Guide for Advanced Programmers
Amiga World tech journal Dec 91
Amiga world tech journal Feb 92
68000 Pocketbook (Glentop)
MC68881/MC68882 Floating-Point Coprocessor User's Manual (Motorola)
Amiga Programmer's Handbook (Sybex)
Mapping the Amiga
Microcomputer Puzzles

Commodore 64/128

C64 Programmers Reference Guide
C128 Programmers Reference Guide
C64 Service Manual
C128 Service Manual
Advanced C64 Machine Code

The Anatomy of the C64
The Anatomy of the 1541

Hardware

Audio Sampler
Video Backup System
2400 baud Modem
Video Digitiser
Power Scanner

Games Software

Castle Master
Mercenary
StarFleet I
Murder!
ArmourGeddon
Gunship
TV Sports Baseball
John Madden American Football (Platinum Edition)
Indianapolis 500 (Platinum Edition)

Videos

History of the Amiga
The Deluxe Paint IV Video Guide
Amiga Animation Video Volume 2
CU Amiga's Guide to Amiga Video
Space Wars

New CD-ROM Additions

CUGI recently added two new CD-ROMs to its library. *Gold Fish* contains all 1,000 Fred Fish disks, while *Fresh Fonts* has over 100 shareware fonts, each in Adobe, Bitmap, CompuGraphic and TrueType formats.

The library also received some classic games (listed above) from Tommy Rolfs, as he left for pastures new.

Library Rules & Fees

Starting from February 1995, the charges and fines are now updated to reflect the change from bi-weekly to monthly meetings. The fine for overdue items is now £1.00 (increased from 50p). This is hardly excessive, since I've not yet had to enforce it.

Currently, charges are as follows:

Item/Category	*Deposit*	*Rental*
Sampler	£5.00	£2.00
Video Backup System	£5.00	£2.00
Modem	£5.00	£2.00
Video Digitiser	£10.00	£5.00
Scanner	£20.00	£5.00
CD-ROMs	£4.00	£1.00
Videos	£2.50	£2.50
Games	£2.00	£1.00

The deposit for the scanner is relatively high because it is a delicate piece of hardware. Since items in the library are effectively investments by the user group and members thereof, it is expected that members borrowing hardware items should be especially careful that the instructions are read and understood before use. The same guideline applies to the other items available.

Thank You

Suggestions for library services are welcome, as are donations of items for inclusion in the library! Anyone interested in any items (whether listed or not) is welcome to talk to me at any of the monthly meetings.